

541,385  
Translation

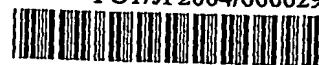
PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

PCT/JP2004/000029



Applicant's or agent's file reference P0002286WO	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2004/000029	International filing date (day/month/year) 07 January 2004 (07.01.2004)	Priority date (day/month/year) 16 January 2003 (16.01.2003)
International Patent Classification (IPC) or national classification and IPC H03K 17/08, 17/687		
Applicant SHINDENGEN ELECTRIC MANUFACTURING CO.,LTD.		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☐ (sent to the applicant and to the International Bureau) a total of \_\_\_\_\_ sheets, as follows:
    - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:
 

<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand 19 March 2004 (19.03.2004)	Date of completion of this report 05 April 2005 (05.04.2005)
Name and mailing address of the IPEA/IP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2004/000029

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP04/000029

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)

Claims

3-5, 8-10

YES

Claims

1, 2, 6, 7

NO

Inventive step (IS)

Claims

3-5, 8-10

YES

Claims

1, 2, 6, 7

NO

Industrial applicability (IA)

Claims

1-10

YES

Claims

NO

## 2. Citations and explanations (Rule 70.7)

Documents cited in the ISR:

Document 1: JP, 2001-267899, A (Denso Corp.), 28 September, 2001 (28.09.01), [0012]-[0020], Fig. 1

Document 2: JP, 2001-267898, A (Denso Corp.), 28 September, 2001 (28.09.01), [0006]-[0008], Fig. 2

Document 3: JP, 2002-353794, A (Yazaki Corp.), 6 December, 2002 (06.12.02), [0018]-[0028], Fig. 2

Document 4: JP, 2000-299626, A (Yazaki Corp.), 24 October, 2000 (24.10.00), [0005], Fig. 13

Document 5: JP, 3152000, B2 (Toyota Motor Corp.), 24 October, 2000 (24.10.00), [0003]-[0009], Fig. 4

Document 6: JP, 4-134271, A (NEC Corp.), 8 May, 1992 (08.05.92), page 2, lower left column, line 15 to lower right column, line 13, Fig. 1

Document newly cited in this report:

Document 7: JP, 10-335998, A (Denso Corp.), 18 December, 1998 (18.12.98), [0003]-[0005], Fig. 6

1. It would be possible to alter the subject matters of document 1 (Fig. 1), document 2 (Fig. 2) and document 3 (Fig. 2) into a constitution wherein a source electrode for an auxiliary switch is connected with a first resistor element in view of well-known design examples of circuit configurations whereby two input voltages to a differential amplifier are made equal to each other by feeding the output of the said differential amplifier back to the gate electrode of MOSFET (see document 7, if necessary).
2. Each of "an amplifier" of claim 1, and 21 in Fig. 1 of document 1, 61 in Fig. 2 of document 2 and CMP11 in Fig. 2 of document 3 is given a predetermined gain. Calling such units with that gain an "amplifier" or a "comparator" is merely a matter of naming, and there are no substantial differences between "an amplifier" of claim 1, and 21 in Fig. 1 of document 1, 61 in Fig. 2 of document 2 or CMP11 in Fig. 2 of document 3.
3. The subject matters of claims 1 and 2 do not appear to be novel or to involve an inventive step in view of documents 1-3 cited in the ISR, and document 7 newly cited in this report.
4. The subject matters of claims 6 and 7 do not appear to be novel or to involve an inventive step in view of documents 1 and 2 cited in the ISR, and document 7 newly cited in this report.

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.  
Continuation of: V

5. The way of connecting "a third switch" in the subject matters of claims 3, 4, 8 and 9, and the way of connecting "a first resistor element" in the subject matters of claims 5 and 10, are neither described in any of the documents cited in the ISR and this report nor obvious to a person skilled in the art.